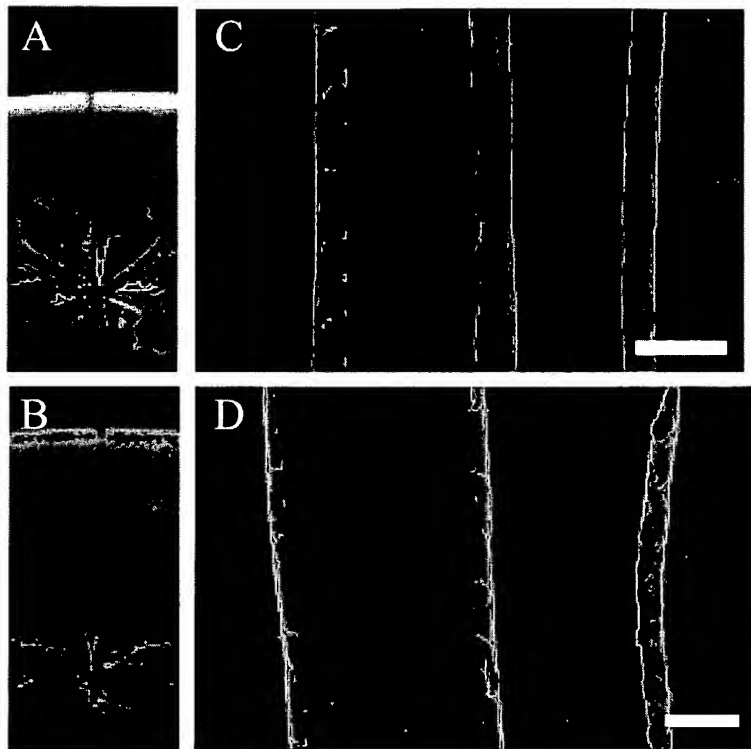


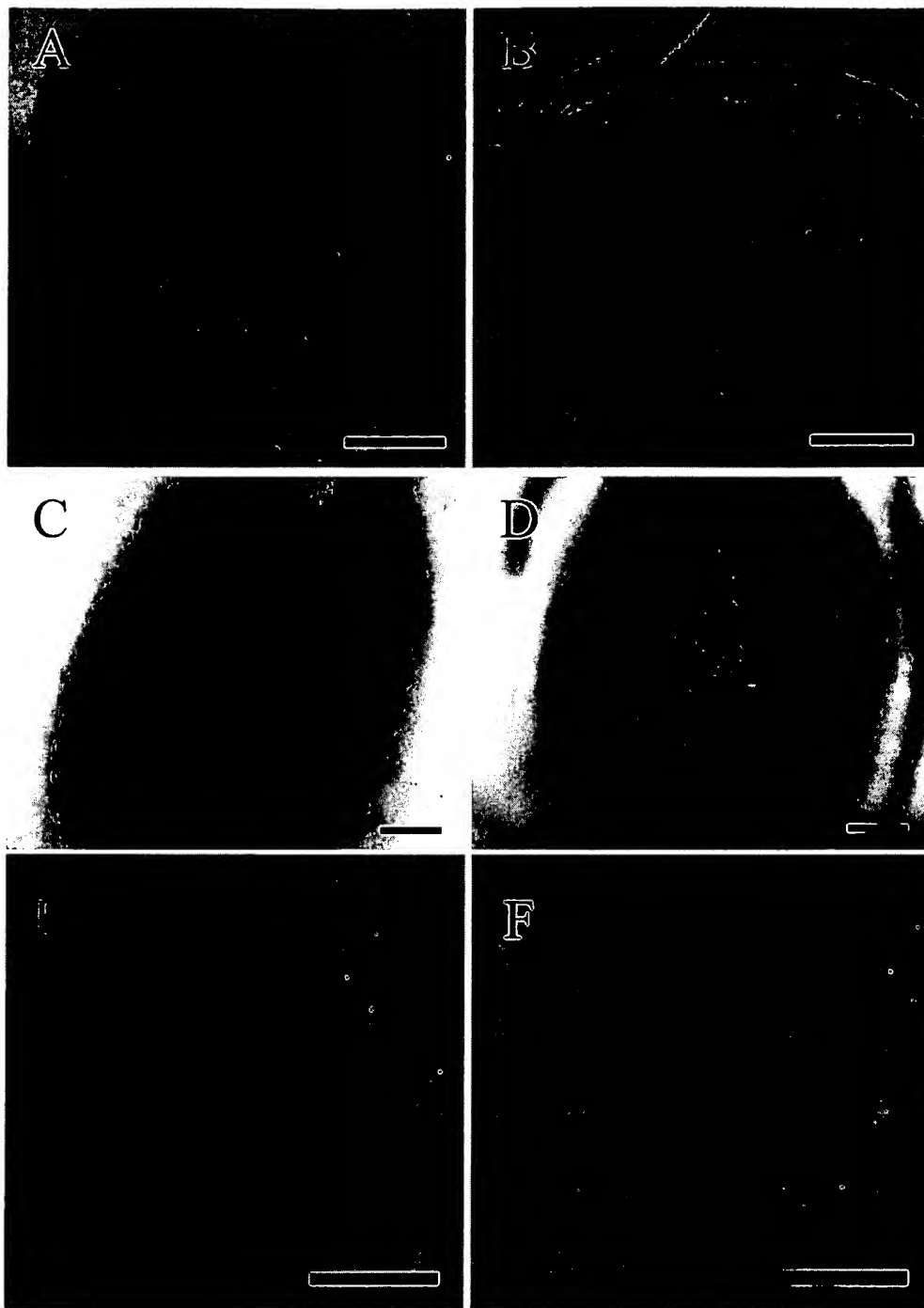
**Fig. 1**



*Fig. 2*

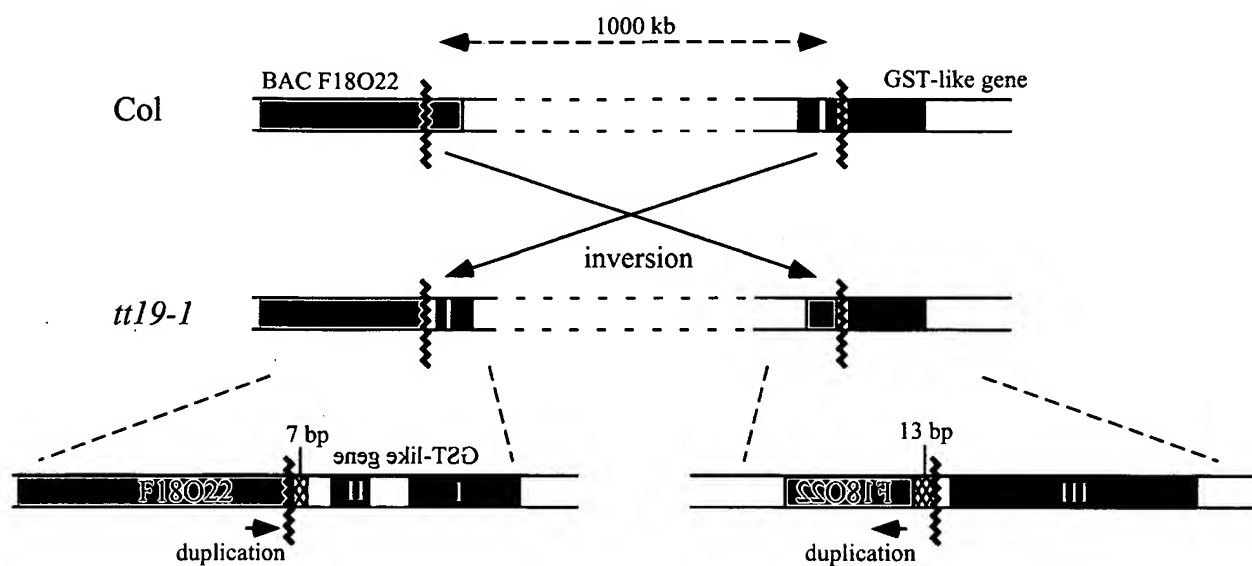


***Fig. 3***

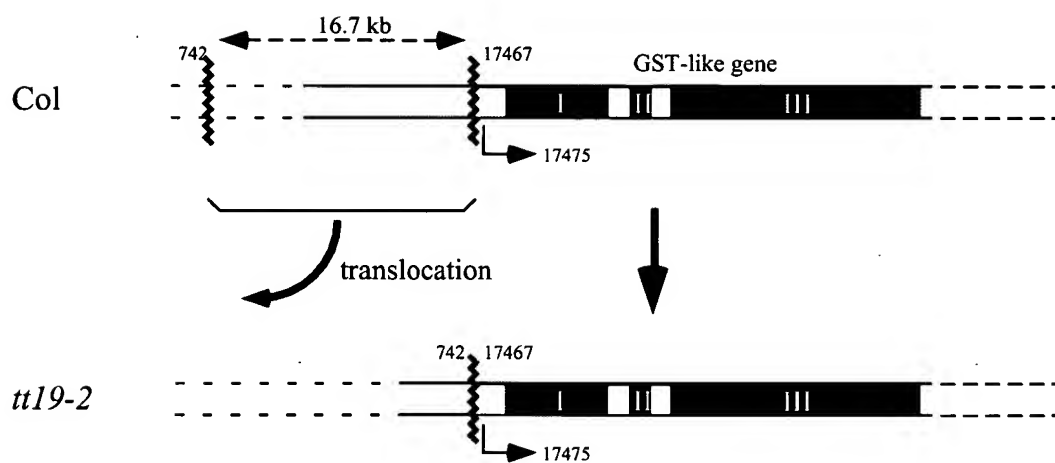


*Fig. 4*

A



B



**Fig. 5**

A

At-TT19 ---MVVKLYGQVTAACQVRVLLCFLEKGI EFEI IHI DLDTFEQKKPEHLLRQP-FGQVPA  
 At-H36860 ---MVVKVYGGI KAANPQVRVLLCFLEKDI EFEVI HVLDLQKLEQKKPQHLRQP-FGQVPA  
 Ph-AN9 ---MVVKVHGSAMAACQVRVAVCLIELGVDFELI HVLDLSLEQKKPEFLVLPQ-FGQVPA  
 Nt-parB ---MAIKVHGSMPSTATMRVAACLIEKELDFEFVVDMAEGEHKKHPYLSLNP-FGQVPA  
 Zm-GSTIII ---MAPLKLYGMPLSPNVVRVATVLENEGLDFEIVPVDLTTGAHKQPDFLALNP-FGQVPA  
 Zm-GSTI ---MAPLKLYGAVMSWNLTRCATALEEAGSDYEIVPINFATAEHKSPHLLVRNP-FGQVPA  
 Zm-GSTIV MATPAVKVYQWAI SPFVSRAALLALEEAGVDYELVPMRQGDHRRPEHLARNP-FGQVPA  
 Ta-GSTA1 ---MSPVKVFGHPMLTNVARVLLFLEEVEGAEYELVPMDFVAGEHRRPQHVQVLP-FAKMPG  
 Zm-BZ2 -----MRVLGGVSPFTARARLALDLRGVAYELL--DEPLGPKKSDRLAANPVYGI PV

At-TT19 IEDGD-FKL FESRAIARYATKFAAQ-----GTNLLGKSL--EHRAIVDQWADVETYYFN  
 At-H36860 IEDGY-LKL FESRAIARYATKYAQ-----GTDLLGKTL--EGRAIVDQWVEVNNYFY  
 Ph-AN9 IEDGD-FRL FESRAIIRYAAKYEVK-----GSKLTGTTL--EEKALVDQWLEVESNNYN  
 Nt-parB FEDGD-LKL FESRAITQYIAHYADN-----GYQLILQDP--KKMPSMSVMEVEGQKFE  
 Zm-GSTIII LVDGD-EVL FESRAINRYIASKYASE-----GTDLLPATA--S-AAKLEWVLEVESHHFH  
 Zm-GSTI LQDGD-LYL FESRAICKYAARKNK-----PELLREGN-LEEAMVDVMI EVEANQYT  
 Zm-GSTIV LEDGD-LTL FESRAIARHVLKHK-----PELLGGGR-LEQTAMVDVWLEVEAHQLS  
 Ta-GSTA1 FQDGD-LVL FESRAIAKYILRKYGGTA-----GLDLLGENSGIEELAMVDVWTEVEAQYY  
 Zm-BZ2 LLLPDGRAICESAVIVQYIEDVARESGGAEAGSLLPDDP--YERAMHRFWTAFIDDKFW

At-TT19 VLAQPLVINLI IKPRLG---EKCDVVLVEDLKVKLGVLVDIYNNRLSSNRFLAG-EFFT  
 At-H36860 AVAALPLVMNVVFKPKSG---KPCDVALVEELKVKFDKVLVDYENRLATNRYLGG-DEFT  
 Ph-AN9 DLVYNMVLQLLVFPKMG---QTSDLTLVTCKANKLENVFDIYEQRLSKSKYLAG-EFFS  
 Nt-parB PPATKLTWELGKPIIG---MTTDDAAVKESEAKLSKVLDIYETQLAESKYLG-DSFT  
 Zm-GSTIII PNASPLVFLQVLRPLLG---GAPDAAVVEKHAQLAKVLDVYEAHLARNKYLAG-DEFT  
 Zm-GSTI AALNPILFQVLISPMLG---GTTDQKVVDENLEKLVLEVYEARLTCKCYLAG-DFLS  
 Zm-GSTIV PPAIAIVVECFAPFLG---RERNOQVVDENVEKLVLEVYEARLTCTYLAG-DFLS  
 Ta-GSTA1 PAISPVVFECHIIIPFIIPGGGAAPNOTVDESLERLRGVLGIYEAREKSKYLAG-DSIT  
 Zm-BZ2 PALDAVS---LAPTPG---ARAQAAEDTRAALSLEEAFKDRSNGRAFFSGGDAAP

At-TT19 -MADLTHMPAMGYLMSITDIN--QMVKA--RGSFNRWEEISDRPSWKKLMVLAGH----  
 At-H36860 -LADLSHMPGMYIMNETSL--GLVTS--RENLRWNEISARPAWKKLMELAAAY----  
 Ph-AN9 -LADLSHLPRLFLMNEGGFS--HLVTK--RKCLHEWYLDISSRDSWKKVLDLMMKKISE  
 Nt-parB -LVDLHHIPNIYYLNS-SKVK--EVFDS--RPRVSAWCADILARPAWVKGLEKLOK----  
 Zm-GSTIII -LADANHALLPALTSARPPRP--GCVA--RPHVKAWWEAIAARPAFOKTVAAILPLPPP  
 Zm-GSTI -LADLNHVSVTLCIFA-TPYA--SVLDA--YPHVKAWWSGLMERPSVQKVAALMKPSA--  
 Zm-GSTIV -LADLSPTFIMHCLMA-TEYA--ALVHA--LPHVSAWWQGLAARPAANKVAQFMVPGAGA  
 Ta-GSTA1 -FADLNHIFPTFYFNT-TPYA--KVFD--YPKVKAWEMLMARPAVQRVCKHMPTEFKL  
 Zm-BZ2 GLLDLALGCLPALRACERLHGLSLIDASATPLLDGWSQRFAAHPAAKRVLPDTEKVVQF

At-TT19 -----  
 At-H36860 -----  
 Ph-AN9 IEAVSIPAKEEAKV-----  
 Nt-parB -----  
 Zm-GSTIII SSSA-----  
 Zm-GSTI -----  
 Zm-GSTIV PKEQE-----  
 Ta-GSTA1 GAQY-----  
 Zm-BZ2 TRFLQVQAQFRVHVS

B

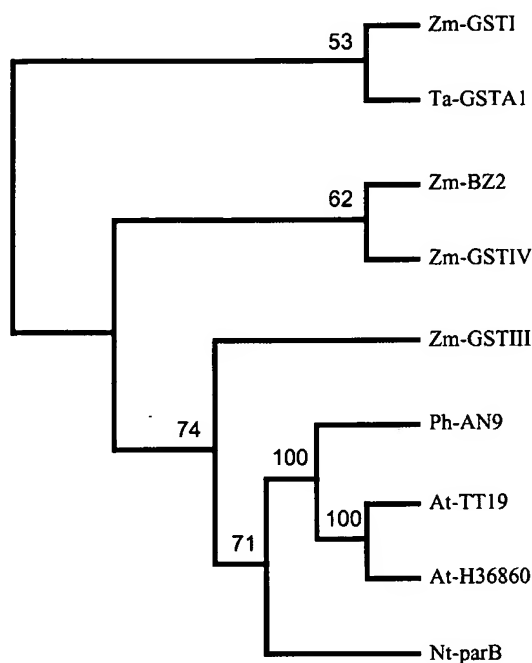
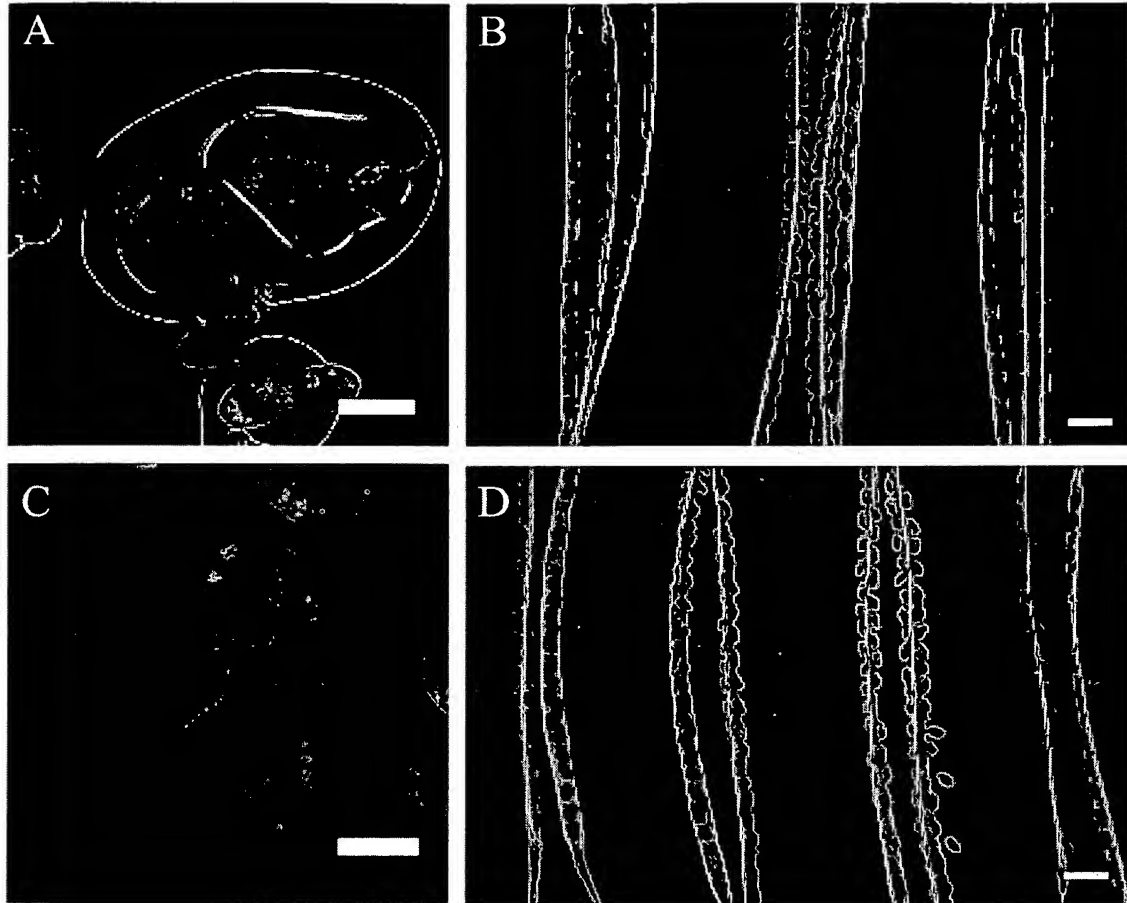
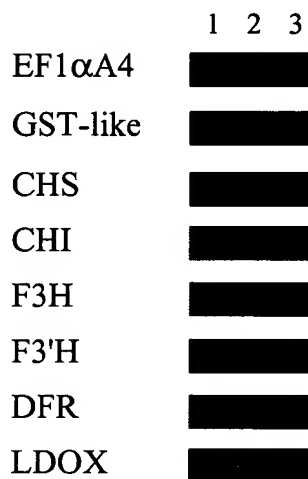


Fig. 6

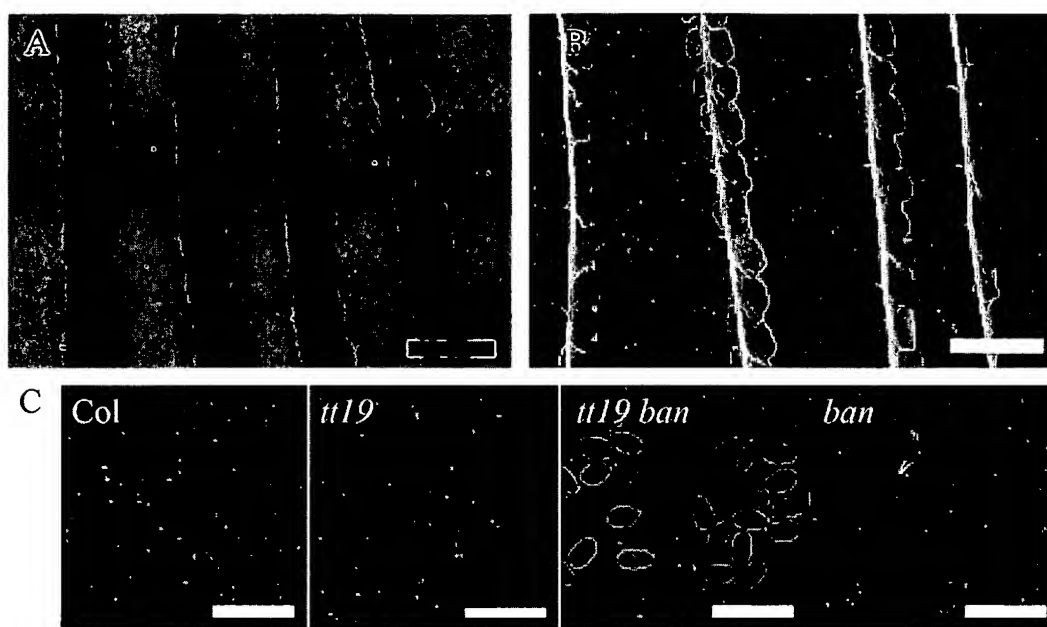


*Fig. 7*

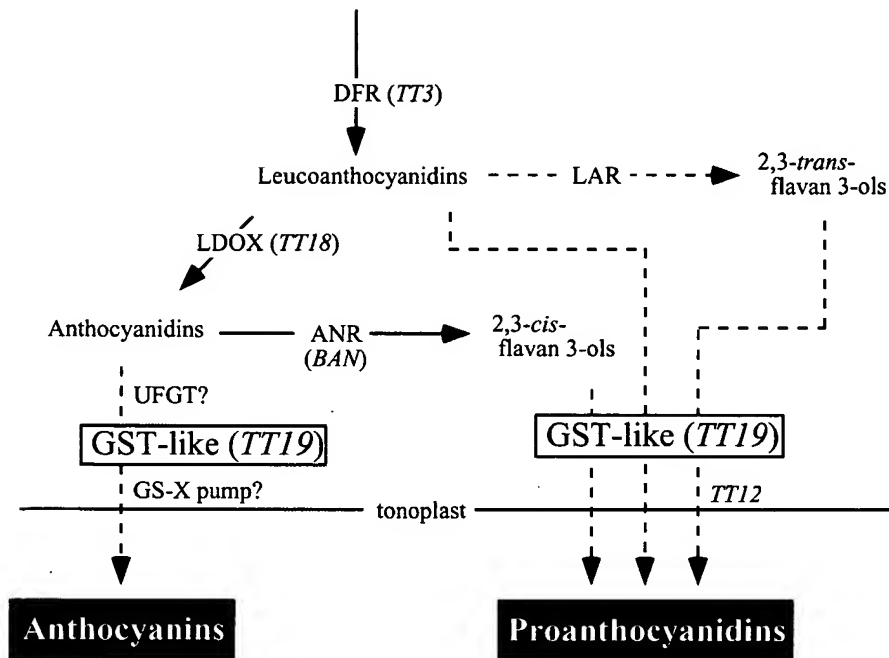


***Fig. 8***





**Fig. 9**



**Fig. 10**